- (2) If protection against ultra-violet radiation is required, it must be provided by the addition of carbon black or other suitable pigments or inhibitors. These additives must be compatible with the contents and remain effective throughout the life of the packaging. Where use is made of carbon black, pigments or inhibitors other than those used in the manufacture of the design type, retesting may be omitted if the carbon black content does not exceed 2 percent by mass or if the pigment content does not exceed 3 percent by mass; the content of inhibitors of ultra-violet radiation is not limited.
- (3) Additives serving purposes other than protection against ultra-violet radiation may be included in the composition of the plastic material provided they do not adversely affect the chemical and physical properties of the packaging material.
- (4) The wall thickness at every point of the packaging must be appropriate to its capacity and its intended use, taking into account the stresses to which each point is liable to be exposed. Minimum thickness and marking requirements in §§173.28(b)(4) and 178.503(a)(9) of this subchapter apply to drums intended for reuse.
- (5) Openings for filling, emptying and venting in the bodies or heads of non-removable head (1H1) drums and jerricans (3H1) may not exceed 7.0 cm (3 inches) in diameter. Drums and jerricans with larger openings are considered to be of the removable head type (1H2 and 3H2). Closures for openings in the bodies or heads of drums and jerricans must be so designed and applied that they remain secure and leakproof under normal conditions of transport. Gaskets or other sealing elements must be used with closures unless the closure is inherently leakproof.
- (6) Closure devices for removable head drums and jerricans must be so designed and applied that they remain secure and leakproof under normal conditions of transport. Gaskets must be used with all removable heads unless the drum or jerrican design is such that when the removable head is properly secured, the drum or jerrican is inherently leakproof.

- (7) Maximum capacity of drums and jerricans: 1H1, 1H2: 450 L (119 gallons); 3H1, 3H2: 60 L (16 gallons).
- (8) Maximum net mass: 1H1, 1H2: 400 kg (882 pounds); 3H1, 3H2: 120 kg (265 pounds).

[Amdt. 178-97, 55 FR 52717, Dec. 21, 1990, as amended by Amdt. 178-102, 59 FR 28494, June 2, 1994; 64 FR 10782, Mar. 5, 1999; 66 FR 45386, Aug. 28, 2001]

§178.510 Standards for wooden barrels.

- (a) The following are identification codes for wooden barrels:
- (1) 2C1 for a bung type wooden barrel; and
- (2) 2C2 for a slack type (removable head) wooden barrel.
- (b) Construction requirements for wooden barrels are as follows:
- (1) The wood used must be of good quality, straight-grained, well-seasoned and free from knots, bark, rotten wood, sapwood or other defects likely to lessen the effectiveness of the barrel for the purpose intended.
- (2) The body and heads must be of a design appropriate to the capacity and intended use of the barrel.
- (3) Staves and heads must be sawn or cleft with the grain so that no annual ring extends over more than half the thickness of a stave or head.
- (4) Barrel hoops must be of steel or iron of good quality. The hoops of 2C2 barrels may be of a suitable hardwood.
- (5) For wooden barrels 2C1, the diameter of the bung-hole may not exceed half the width of the stave in which it is placed.
- (6) For wooden barrels 2C2, heads must fit tightly into crozes.
- (7) Maximum capacity of barrel: 250 L (66 gallons).
- (8) Maximum net mass: 400 kg (882 pounds).

§178.511 Standards for aluminum and steel jerricans.

- (a) The following are identification codes for aluminum and steel jerricans:
- (1) 3A1 for a non-removable head steel jerrican;
- (2) 3A2 for a removable head steel jerrican;
- (3) 3B1 for a non-removable head aluminum jerrican; and